



# ⋮⋮⋮ HIPAA Compliance and RDMS

MMIS/HIPAA Conference 2003

## ⋮⋮ Oklahoma MMIS and HIPAA - Background



- Best of times.
  - Efficiencies Gained
    - Architecture decisions based on HIPAA transactions
    - Combined policy and HIPAA Modifications
    - System testing incorporated all changes
    - System Documentation

## ⋮⋮ Oklahoma MMIS and HIPAA - Background



- Worst of times.
  - Concurrent timelines during design and construction.
  - Impact of the October 2003 extension
    - Adoption of a standard
    - Communication of the standard
    - Coordination of testing

## Result

- A HIPAA compliant system delivered:
  - Ahead of schedule
  - Under the estimated effort
  - Designed to support future changes to the X12 standard.

# ⋮⋮ Oklahoma MMIS and HIPAA - Technology



- Unix Operating System
- Oracle 9I Relational Database
- Application Code
  - C
  - PowerBuilder 8.0
  - SQL
  - HTML/XML/ASP/JScripts

## ⋮⋮ Advantages of the RDMS Design

- Additional Attributes to Data Model
  - Minimizes changes to application code
  - No mass recompiles
  - Normalized data model
    - Reduces application changes
    - Reduces redundant data

## ⋮⋮ Advantages of the RDMS Design



- Table Driven Design
  - Complete adoption of HIPAA Code Sets
  - System Portability
  - Data Capture
    - Non-essential data maintained efficiently
    - Immediately available to users
    - Relationships are maintained for outbound transactions
    - Data available to Data Warehouse

## ⋮⋮ Advantages of the RDMS Design



- RDMS Enabled System Design
  - Use of Attribute Keys
    - Reduce maintenance on attribute change
    - Base attribute value changes supported
  - RDMS-based Project Management tools improved Gap Analysis
  - Transaction based processing
    - Enabled Direct Data entry via Internet



# ❖❖❖ HIPAA Remediation Effort

**HIPAA  
Development  
9%**



**Base MMIS  
Development  
91%**

■ **Base MMIS  
Development**  
■ **HIPAA Development**

# ⋮⋮ HIPAA Remediation System Objects Impacted

**Objects  
Modified For  
HIPAA**

**3%**



**Total System  
Objects  
97%**

- **Total System Objects**
- **Objects Modified For HIPAA**

## ⋮⋮ Questions and Answers



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